IN THE CLAIMS:

1.   (Original) An audio-video multiplexed data generating apparatus that multiplexes audio data and video data together, comprising:

an audio encoder for encoding inputted audio data;

an audio data storage for storing the audio data encoded by said audio encoder;

a video encoder for encoding inputted video data;

a video data storage for storing the video data encoded by the video encoder;

a spare-video encoder for encoding video data at a frame rate different from the frame rate of said video encoder;

a spare-video-data storage for storing the video data encoded by said spare-video encoder;

a synchronization information generator for generating synchronization information for synchronizing the audio data and the video data when multiplexed data is reproduced;

a synchronization information storage for storing the synchronization information generated by said synchronization information generator; and

an audio-video multiplexer for multiplexing the audio data stored in said audio data storage, the video data stored in said video data storage, the spare video data stored in said spare-video-data storage, and the synchronization information generated by said synchronization information generator.

2.   (Original) The audio-video multiplexed data generating apparatus according to claim 1, wherein said spare-video encoder encodes the video data at a frame rate lower than the frame rate of said video encoder.

3.   (Original) The audio-video multiplexed data generating apparatus according to claim 1, wherein said spare-video encoder does not encode reference picture data but encodes difference picture data.

4.   (Original) The audio-video multiplexed data generating apparatus according to claim 1, wherein said audio-video multiplexer successively multiplexes said spare video data supplementing decoding of the video data, in sequence after the video data to be supplemented by the decoding.

5.   (Original) The audio-video multiplexed data generating apparatus according to claim 1, further comprising:

a spare-audio encoder having the same audio input as said audio encoder; and

a spare-audio-data storage for storing spare audio data encoded by said spare-audio encoder;

wherein said spare-audio encoder generates the spare audio data with a simple encoding scheme that requires a smaller amount of processing than said audio encoder.

6.   (Original)   An   audio-video   multiplexed   data reproducing apparatus that demultiplexes multiplexed audio-video data, comprising:

an audio-video demultiplexer for demultiplexing inputted multiplexed data into audio data, video data, spare video data, and synchronization data;

an   audio   data   storage   for   storing   the   audio   data demultiplexed by said audio-video demultiplexer;

a video data storage for storing video data demultiplexed by said audio-video demultiplexer;

a spare-video-data storage for storing the spare video data demultiplexed by said audio-video demultiplexer;

a synchronization information storage for storing the synchronization information demultiplexed by said audio-video demultiplexer;

an audio decoder for decoding said audio data;

a video selector for selecting either said video data or said spare-video-data to be decoded;

a video decoder for decoding the video data selected by said video selector; and

a synchronization controller for controlling said audio decoder, said video selector, and said video decoder according to said synchronization information to reproduce the multiplexed data.

4

7.   (Original)   The   audio-video   multiplexed   data reproducing apparatus according to claim 6, wherein said video selector selects the video data from the video data storage and   inputs   said   video   data   into   the   video   decoder   for performing the video decoder if decoding of the previous video data has been completed when a request for the video decoding is issued from said synchronization controller.

8.   (Original)   The   audio-video   multiplexed   data reproducing apparatus according to claim 6, wherein said video selector   selects   the   spare-video-data   from   said   spare   video data storage and inputs said spare video data into said video decoder for executing said video decoder if decoding of the previous video data has not been completed when a request for the   video   decoding   is   issued   from   said   synchronization controller.

9.   (Original)   The   audio-video   multiplexed   data reproducing apparatus according to claim 6, further comprising a   spare-audio-data   storage   for   storing   spare   audio   data demultiplexed by said audio-video demultiplexer; and

an audio selector for selecting either said audio data or said spare audio data to be decoded;

wherein, if it is determined that decoding of the audio data requested by said synchronization controller is not completed in time, said audio selector selects the spare audio data from said spare-audio-data storage and inputs said spare-audio-data into said audio decoder for audio decoding.

10.   (Original) A moving video decoding apparatus that decodes moving video data, comprising:

a video-decoding-determining module for determining whether or not video decoding is completed within a predetermined time;

a video decoder for decoding inputted video data on a macroblock-by-macroblock basis;

a color converter for performing color conversion of the decoded data outputted from said video decoder; and

a video display for displaying the color-converted data outputted from said color converter;

wherein said video decoder omits video decoding according to a predetermined rule to reduce the amount of processing depending on the determination made in said video-decoding-determining module.

11.   (Original) The moving video decoding apparatus according to claim 10, further comprising:

an   orthogonal-transformation-unit-determining   module after said video-decoding-determining module but before said

video decoder, wherein if it is determined in said video-decoding-determining module that it is difficult for the video decoding to be completed within the predetermined time, said orthogonal-transformation-unit-determining module sets the size of unit of orthogonal transformation to a value smaller than a regular value to reduce the amount of processing in said video decoder.

12.   (Original) The moving video decoding apparatus according to claim 10, further comprising a video-decoding-rule-determining module after said video-decoding-determining module but before said video decoder, wherein if it is determined in said video-decoding-determining module that it is difficult for the video decoding to be completed within the predetermined time, decoding of macroblocks is omitted according to a rule determined by said video-decoding-rule-determining module and the same values that are used in the previous frame are used for said macroblocks the decoding of which is omitted.

13.   (Original) The moving video decoding apparatus according to claim 10, further comprising a motion-vector-determining module after said video-decoding-determining module but before said video decoder, wherein if it is determined in said video-decoding-determining module that it is difficult for the video decoding to be completed within the

predetermine time, macroblocks that are determined to have a small motion vector by said motion-vector-determining module are omitted from the decoding, macroblocks that are determined to have a large motion are subjected to the decoding, and the same values that are used in the previous frame are used for the macroblocks omitted from the decoding.

14. (Original) The moving video decoding apparatus according to claim 10, further comprising a color conversion determining module after said video decoder but before said color converter, wherein video data that is determined in said color conversion determining module to be difficult to reproduce in real time is omitted from processing in a color converter and processing in a video display to reduce the amount of processing.

15. (Currently Amended) The audio-video multiplexed data reproducing apparatus that reproduces multiplexed data according to ~~any of claims 6 to 9~~ claim 6, wherein demultiplexed video data is decoded by using the video decoding apparatus according to any of claims 10 to 14.

16. (Original) An audio-video multiplexed data generating and
 reproducing system that encodes audio data and video data, multiplexes the audio and video data together to generate

audio-video multiplexed data, and reproduces the audio-video multiplexed data, wherein,

the step of generating audio-video multiplexed data comprises:

encoding inputted video data in a video encoder, and generating spare video data in a spare-video encoder by encoding the video data at a frame rate different from the frame rate of said video encoder;

generating synchronization information for synchronizing the audio data and video data during reproduction of the multiplexed data; and

multiplexing an encoded signal of the audio data, a signal encoded by the video encoder, said synchronization information, and said spare video data together, and

the step of reproducing audio-video multiplexed data comprises the steps of:

demultiplexing the multiplexed data generated in said audio-video multiplexed data generating step into the audio data, video data, synchronization information, and spare video data;

controlling an audio decoder that decodes said demultiplexed audio data and a video decoder that decodes said demultiplexed video data to output reproduced audio and reproduced video in synchronization with each other according to said synchronization information; and

if decoding by said video decoder is not complete in time, decoding by said video decoder the spare video data instead of said demultiplexed video data; and when the decoding by said video decoder is completed within a predetermined time, decoding said demultiplexed video data instead of said spare data by said video decoder to restore the original frame rate of moving video reproduction.